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Superfund Response and
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Appendix D

Site Inspection

Amchitka Island, Alaska

Investigation - Derived Waste Management Plan

USEPA SF



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TABLE OF CONTENTS

1.0	<u>INTRODUCTION</u>	D-1
1.1	PURPOSE	D-1
1.2	SCOPE	D-2
1.3	DEFINITIONS	D-2
1.4	ASSUMPTIONS	D-3
1.5	INVESTIGATION-DERIVED WASTE MINIMIZATION	D-4
1.6	REGULATORY REQUIREMENTS	D-5
2.0	<u>EXPECTED INVESTIGATION-DERIVED WASTE STREAMS</u>	D-6
2.1	EXCESS FROM SOIL, SEDIMENT, AND WATER SAMPLES FROM ON SITE ANALYSES	D-7
2.2	RESIDUAL SOIL AND SEDIMENT FROM ON-SITE ANALYSES	D-8
2.3	MISCELLANEOUS WASTES FROM ON-SITE ANALYSES	D-8
2.4	DECONTAMINATION FLUIDS	D-8
2.5	PERSONAL PROTECTIVE EQUIPMENT	D-8
2.6	MISCELLANEOUS NONHAZARDOUS WASTE	D-9
3.0	<u>INVESTIGATION-DERIVED WASTE MANAGEMENT CONTROL MEASURES</u>	D-9
3.1	GENERAL INVESTIGATION-DERIVED WASTE CATEGORIES AND MANAGEMENT STANDARDS	D-9
3.1.1	<u>Excess Soil and Sediment</u>	D-9
3.1.2	<u>Excess Water</u>	D-10
3.1.3	<u>On-Site Laboratory Wastes</u>	D-11
3.1.4	<u>Decontamination Water</u>	D-11
3.1.5	<u>Personal Protective Equipment</u>	D-13
3.2	MANAGEMENT OF CONTAINERIZED INVESTIGATION-DERIVED WASTE	D-13
3.2.1	<u>Containerization</u>	D-13
3.2.2	<u>Container Labeling</u>	D-14
3.2.3	<u>Container Inspections</u>	D-15
3.3	SAMPLING	D-15
3.4	STORAGE	D-16
3.5	DISPOSAL	D-16
3.5.1	<u>RCRA Hazardous Waste</u>	D-16
3.5.2	<u>TSCA Wastes</u>	D-17
3.5.3	<u>TPH-Contaminated Soils and Other Chemically Contaminated Wastes</u>	D-17
3.5.4	<u>Nonhazardous Waste and Uncontaminated Trash</u>	D-17

4.0	DOCUMENTATION AND NOTIFICATION	D-17
4.1	TRANSPORTATION	D-18
4.2	HAZARDOUS WASTE MANIFESTS AND LAND DISPOSAL RESTRICTION CERTIFICATION	D-19
4.3	TRANSPORTATION OF HAZARDOUS WASTE THROUGH CANADA ..	D-20
4.4	RCRA RECORDKEEPING	D-21
5.0	<u>REFERENCES</u>	D-22

LIST OF ABBREVIATIONS

ADEC	Alaska Department of Environmental Conservation
BTEX	benzene, toluene, ethylbenzene, and xylene
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	Department of Transportation
DRO	diesel range organic
EPA	Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
GRO	gasoline range organic
IDW	Investigation-Derived Waste
IDWMP	Investigation-Derived Waste Management Plan
LDR	Land Disposal Restriction
PCB	Polychlorinated biphenyl
PPE	personal protective equipment
RCRA	Resource Conservation and Recovery Act
SI	Site Inspection
TSCA	Toxic Substances Control Act
UST	underground storage tank
VOA	volatile organic analysis

1.0 INTRODUCTION

Site Inspection (SI) activities at Amchitka Island will generate small amounts of investigation-derived waste (IDW). To the extent possible, the designated activities will be conducted with an effort to minimize IDW. Additionally, because of the remote location of the island and the limited ability to transport waste items on and off the island itself, it is preferred to limit the amount of containerized waste generated.

1.1 PURPOSE

The purpose of this IDW management plan (IDWMP) is to describe the anticipated approach and procedures for IDW management. During the investigation, waste will be generated that:

- may contain hazardous substances as defined by the Comprehensive, Environmental Response, Compensation, and Liability Act (CERCLA),
- may be listed as a hazardous waste under the Resource Conservation and Recovery Act (RCRA),
- may be characteristic hazardous waste under RCRA,
- may be nonhazardous waste containing polychlorinated biphenyls (PCBs) that are regulated under the Toxic Substances Control Act (TSCA)
- may be hazardous waste regulated under the Alaska Hazardous Waste Management regulations
- may be nonhazardous waste regulated under the Alaska Solid Waste Management Act
- may be nonhazardous, underground storage tank (UST), or non-UST petroleum-contaminated soils regulated under Alaska Underground Storage Tank regulations or Oil and Hazardous Substances Pollution Control regulations.

The intent of IDW management is to leave the site in no worse condition after the investigation than existed prior to the investigation and to comply with all applicable regulations and laws. These IDW management procedures are directed toward IDW minimization to reduce the quantity of IDW that will require treatment, storage, and disposal.

1.2 SCOPE

Guidance documents developed under CERCLA are applicable to the site and will serve as guidance for managing IDW at Amchitka Island. Guidance from two Environmental Protection Agency (EPA) documents was used in preparing this document: *Management of Investigation-Derived Wastes During Site Inspections*, OERR Directive 9345.3-02, dated May 1991, and *Guide to Management of Investigation-Derived Wastes*, OERR Directive 9345.3-03FS, dated April 1992. The most important elements of the IDW management approach, as listed in the above-referenced guidance, are as follows:

- Leaving a site in no worse condition than existed prior to the investigation;
- Removing those wastes that pose an immediate threat to human health or the environment;
- Storing on-site waste that is contaminated but not hazardous for treatment during the remedial action;
- Carefully planning and coordinating for IDW management; and
- Minimizing the quantity of generated wastes.

1.3 DEFINITIONS

Cross-contamination - Spread of contaminants from one item to another or from one location to another.

Hazardous Waste - Defined by 40 CFR Part 261, as any material that:

- a) is a solid waste;
- b) is not excluded from regulation under Subpart C or D;
- c) is a listed hazardous waste (Subpart D), or contains a waste listed in Subpart D;
- d) exhibits any of the characteristics (ignitability, corrosivity, reactivity or toxicity) in Subpart C.

Excess Sample - Volume of sample collected for on-site analysis but not used in analysis

Residual Sample - Waste produced from on-site analysis procedures of sample

Alaska Hazardous Waste - Defined by 18 AAC 60.190(28), as a waste or combination of wastes that because of quantity, concentration, or physical, chemical, or infectious, pathological or radiological characteristics might:

- a) cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or in incapacitating reversible, illness, or
- b) pose a substantial present or potential hazard to human health or to the environment if improperly managed, treated, stored, transported, or disposed of.

Waste - Any material that meets the definition of solid waste in 40 CFR Part 261.

UST and Non-UST Petroleum-Contaminated Soils - Defined by 18 AAC 78.315 and Alaska Department of Environmental Conservation (ADEC) guidance "Interim Guidance for Non-UST Contaminated Soil Cleanup Levels," Revision 1, July 17, 1991. Any soils that exceed the most restrictive cleanup levels (100 mg/kg diesel range organics [DRO], 50 mg/kg gasoline range organics [GRO], 0.1 mg/kg benzene, and 10 mg/kg benzene, toluene, ethylbenzene, and xylene [BTEX]) must be managed as UST or Non-UST waste. Soils that exceed these levels may be placed back in the environment if approved by ADEC or may be transported off site.

1.4 ASSUMPTIONS

The IDWMP is based on the field sampling and analysis requirements set forth in the Site Inspection Work Plan, the health and safety requirements set forth in the Site Safety and Health Plan, and the following assumptions:

- Foster Wheeler Environmental will make recommendations for waste classifications based on generator knowledge provided in cooperation with the U.S. Fish and Wildlife Service (USFWS) and analytical testing results (40 CFR 262.11). Final waste codes will be approved by USFWS.
- Foster Wheeler Environmental will identify transporters, treatment, storage, and disposal facilities for any off-site disposal and final vendor selection will be provided by USFWS.

- Foster Wheeler Environmental will prepare all waste management documentation, including any Treatment, Storage, and Disposal Facility waste profile sheets, land disposal restrictions (LDRs) certifications, manifests or shipping papers for USFWS signatures.
- Small disposable personal protective equipment (PPE) items shall be treated as potentially contaminated IDW. Larger items will be decontaminated, if possible, and then reused or disposed as solid waste.
- Non-hazardous trash will be bagged, containerized, and kept segregated from chemically contaminated IDW and will be disposed in an approved facility after waste classification has been completed.

1.5 INVESTIGATION-DERIVED WASTE MINIMIZATION

A primary goal of the IDWMP is to minimize the volume of IDW that will be generated, stored, and removed from the site for disposal. In order to minimize the volume of IDW, the following general rules shall be applied:

- a) Do not contaminate materials unnecessarily.
 - Plan work ahead, based on the work procedure to be used.
 - Take only the material (e.g., chemicals) needed to perform the work activity. Additional material can be brought to the work location if it is found to be necessary. Materials can be stored in large containers but the smallest reasonable container shall be used to transport the material to the location where it is needed.
 - Maintain cleaning and extra sampling supplies outside any potentially contaminated area to keep them clean and to minimize additional IDW generation
 - Maintain or construct prefabricated materials, barriers, support equipment, etc., outside potentially contaminated areas.
 - Perform mixing of detergents or decontamination solutions outside potentially contaminated areas.
 - Avoid placing media considered hazardous for different reasons together.

- Use drop cloths or other absorbent material to contain small spills or leaks.
 - Avoid a bellows effect when double-bagging contaminated materials.
 - Use containers to minimize the spread of contamination.
 - Do not place contaminated materials with clean materials.
 - For samples collected for on-site screening, collect only the amount of the specific sample medium necessary to successfully complete the analytical procedure.
- b) Decontaminate and re-use material and equipment when practical.
- c) Use volume reduction techniques when practical.
- Verify that IDW containers are solidly packed to minimize the number of containers.
 - Use only the size of container to meet needs, e.g., do not use a drum or garbage can when a small polyethylene bag will do.
 - Use less hazardous substances whenever possible, e.g., bring only the volume of standard solutions needed for testing, use minimal amounts of decontamination water and solvent rinses.

1.6 REGULATORY REQUIREMENTS

RCRA Subtitle C regulates the generation, treatment, storage, and disposal of hazardous waste from generation through ultimate disposal. The State of Alaska is not authorized to implement RCRA; implementation of RCRA is maintained by EPA Region X. ADEC implements a state-only hazardous waste program.

Hazardous and non-hazardous industrial waste may be generated during the site inspection at Amchitka Island. The following Federal and State Regulations may be applicable:

- 40 CFR Part 260-299 EPA regulations for identifying and managing hazardous waste and land disposal restrictions.

- 40 CFR Part 761 EPA regulations for identifying and managing PCBs.
- 49 CFR Parts 100-177 Department of Transportation (DOT) rules for hazardous materials transport.
- Alaska Environmental Conservation Law
- Alaska Solid Waste Management Regulations
- Alaska Hazardous Waste Management Regulations
- Alaska Underground Storage Regulations
- Alaska Oil and Hazardous Substance Pollution Control Regulations
- Canadian Hazardous Waste Import/Export Regulations.

The above-referenced Alaska hazardous waste regulations incorporate by reference 40 CFR Parts 261 and 268. The federal regulations will be referenced in this document except where Alaska regulations are more stringent. In that case, both the federal and Alaska regulations will be referenced.

2.0 EXPECTED INVESTIGATION-DERIVED WASTE STREAMS

The anticipated IDW streams associated with the field activities will result from soil, sediment, biota, water and materials sampling (e.g., drums, lagoon waste), and the related decontamination activities that will be conducted throughout the sampling process. Specifically, the expected IDW streams can be categorized as follows:

- a) Excess from soil, sediment, and water samples
- b) Residuals from soil and sediment samples
- c) Wastes generated from on-site mobile laboratory (e.g., disposable sampling equipment, vials, syringes).
- d) Nonhazardous water or other fluids used to decontaminate field equipment and PPE

- e) Disposable PPE (e.g., tyvek suits and gloves)
- f) Miscellaneous nonhazardous trash.

The various sources of the IDW are described in the following sections. All sampling activities will have disposable PPE and sampling equipment with them. Estimated quantities of all waste stream types are listed below. Field practices will be conducted where possible to minimize the generation of IDW. The sections below provide a description of anticipated IDW for Amchitka Island.

2.1 EXCESS FROM SOIL, SEDIMENT, AND WATER SAMPLES FROM ON-SITE ANALYSES

The samplers will attempt to collect only the minimal amount of material required for the on-site sample analysis. However, excess sample will be collected to ensure that enough sample is present for duplicate and repeat analysis. Each sample collected for on-site analysis of soil or sediment will be contained in a 40 ml volatile organic analysis (VOA) vial containing water for headspace analysis of volatile organic compounds and a 4 oz jar for immunoassay test kit analysis. No chemicals will be added to the soil sample contained in the 40 ml VOA vial during headspace analysis. At the completion of the headspace analysis, the sample will be treated in the same manner as excess sample. Ten to twelve grams of soil or sediment will be removed from the 4 oz jar for each immunoassay kit analysis. The remaining sample left in the 4 oz jar after all immunoassay kit analyses are completed will be considered excess sample. The volume of excess soils and sediment should not exceed 10 kilograms.

Each water sample collected for on-site analysis will be contained in a 40 ml VOA vial for headspace analysis and a second 40 ml VOA vial, half filled, for immunoassay test kit analysis. No chemicals will be added to the water sample contained in the 40 ml VOA vial during headspace analysis. At the completion of the headspace analysis, the sample will be treated in the same manner as excess sample. The remaining water sample left in the second 40 ml VOA

vial after all immunoassay kit analyses are completed will be considered excess sample. The amount of excess water should not exceed 8 liters.

2.2 RESIDUAL SOIL AND SEDIMENT FROM ON-SITE ANALYSES

A portion of the collected soil and sediment samples will be analyzed using immunoassay test kits. Each immunoassay test requires a volume of 10 to 12 grams of material for a total of about 36 grams for each sample. The analysis procedures require the addition of methanol to these soils and sediments. The residual sample is the soil and sediment contaminated with methanol that remains at the end of the test. The amount of residual soil left from the immunoassay kit testing should not exceed 10 kilograms.

2.3 MISCELLANEOUS WASTES FROM ON-SITE ANALYSES

Small amounts of waste will be generated from headspace/gas chromatography and immunoassay test-kit materials and field supplies (e.g., syringes, vials, sample containers).

It is estimated that no more than one drum of miscellaneous waste will be generated.

2.4 DECONTAMINATION FLUIDS

Field equipment used during the field screening sampling activities will be decontaminated to minimize the potential for cross-contamination. All field sampling equipment will be decontaminated between each sampling activity, using laboratory grade detergent (Liquinox or equivalent), potable water, and deionized water as described in SOP No.1. Personnel decontamination will be minimal with the use of disposable suits and gloves. A boot and glove wash and rinse will be used after exiting contaminated areas. If PPE Level C is implemented, additional decontamination washes will be used. It is estimated that no more than 100 gallons of decontamination water will be generated.

2.5 PERSONAL PROTECTIVE EQUIPMENT

Disposable PPE will include the following items:

- Tyvek full body coveralls
- Chemically resistant gloves
- Respiratory dual cartridge filters for air purifying and a combination organic vapor/HEPA filter (respirators will be added if needed based upon the air monitoring action levels)

Efforts will be made to minimize the amount of PPE generated. It is estimated that no more than six drums of PPE will be generated.

2.6 MISCELLANEOUS NONHAZARDOUS WASTE

Miscellaneous trash will include outer wrappings from test kits, decontaminated empty sample containers, and any other items that have not been contaminated or come into contact with any field screening media. The trash will be collected and segregated from the PPE and sample test kit waste. The amount of miscellaneous trash generated is not expected to exceed 1 bag.

3.0 INVESTIGATION-DERIVED WASTE MANAGEMENT CONTROL MEASURES

This section describes the various IDW management control measures planned for each IDW stream. IDW management measures include on-site handling, segregation, containment, marking and labeling, logging and tracking activities.

3.1 GENERAL INVESTIGATION-DERIVED WASTE CATEGORIES AND MANAGEMENT STANDARDS

3.1.1 Excess Soil and Sediment

Excess from soil and sediment samples analyzed on site will be returned to their site of origin for disposal if contaminants are not found during the on-site analysis. If contaminants are detected above the ADEC criteria, the soil and sediment samples will be containerized as hazardous wastes. All residual soil and sediment samples from immunoassay kit analysis will also be containerized as hazardous waste.

If soils do not exceed ADEC's most restrictive cleanup levels (100 mg/kg DRO, 50 mg/kg GRO, 0.1 mg/kg benzene, and 10 mg/kg BTEX), they will be returned to their site of origin and placed in a small hand-dug pit unless the site of origin is a wetlands or environmentally sensitive area. If soils are found to be nonhazardous, regulated petroleum-contaminated soils, the soils will be containerized and managed as petroleum-contaminated soils.

If PCB contamination in soils is determined to be less than 1 ppm PCBs, the soils will be returned to their site of origin. If soils exceed 1 ppm PCBs, the soils will be containerized and managed accordingly. Soils with concentrations of PCBs greater than 50 ppm will be managed as TSCA waste. If soils are determined to be hazardous, the soils will be containerized and managed as hazardous waste.

3.1.2 Excess Water

Excess from water samples analyzed on site will be returned to their site of origin for disposal if contaminants are not found during the on-site analysis. If contaminants are detected above the ADEC criteria, the water will be treated on site using a portable activated carbon treatment unit. If contaminants are detected above the ADEC criteria in the treatment unit discharge, the water will be containerized as hazardous waste.

If soils in the area where excess water samples were taken do not exceed ADEC's most restrictive cleanup levels for soils (see above), the excess water will be returned to its site of origin. If soil samples exceed this criteria, the water will be decontaminated in accordance with the procedures specified in Section 3.1.4.

If PCB contamination in excess water is determined to be less than 1ppm, the water will be returned to its site of origin. If excess water exceeds 1 ppm PCBs, it will be containerized and managed accordingly. Excess water samples with PCB concentrations greater than 50 ppm will be managed as TSCA waste.

Excess water that is determined to be hazardous will be decontaminated in accordance with the procedure outlined in Section 3.1.4.

3.1.3 Laboratory Wastes

On-site laboratory wastes (vials, syringes, used sample containers, etc.) will be decontaminated. Rinse water poured over the decontaminated materials will be analyzed on site. Laboratory wastes will be containerized and managed according to the waste determination made. Laboratory wastes that contain greater than 50 ppm PCBs will be managed as TSCA-regulated wastes. Laboratory wastes that are determined to be hazardous waste will be containerized and managed as hazardous waste. Laboratory wastes that are determined to be nonhazardous will be containerized as nonhazardous waste.

3.1.4 Decontamination Water

Decontamination water disposal will be conducted in accordance with the SI IDW guidance (EPA 1991). If on-site analysis combined with site historical data indicate that the decontamination water is nonhazardous based on non-UST soil criteria (ADEC 1991), it will be released on to the ground within the site of origin. If on-site analysis combined with site historical data indicate that the soils in the area where decontamination occurred do not exceed ADEC's most restrictive cleanup levels for soils (Refer to Section 3.1.1), the decontamination water will be released to the ground within the site of origin. If soils samples exceed ADEC cleanup criteria, the water will be decontaminated as provided below.

If the analysis and/or historical information indicate the water is hazardous, it will be processed through a portable treatment unit such as one containing granular activated carbon. This type of unit is considered an example of "best demonstrated available technology" applicable to the remote setting of the project. Following treatment in the portable unit, the water will be tested again by on-site screening methods prior to being discharged onto the ground. Iterative treatment in the portable unit will occur until the water has been rendered nonhazardous according to on-

Table 3.1-1 Discharge Criteria for Groundwater

Constituent	Reporting Limit ($\mu\text{g/l}$) ¹	Federal Maximum Contaminant Level ($\mu\text{g/l}$)	State Maximum Contaminant Level ($\mu\text{g/l}$)
Benzene	25*	5	-
Ethylbenzene	25	700	-
Toluene	25	1000	-
Xylene	25	10,000	-
Chlorobenzene	25	100	-
Carbon Tetrachloride	10*	5	-
Methylene Chloride	100*	5	-
Trichloroethylene	5	5	-
Tetrachloroethylene	5	5	-
1,2-Dichloroethene	50*	5	-
1,1,1-Trichloroethane	10	200	-

¹ Reporting limits listed here are based on past headspace/gas chromatograph results from previous field investigations. Actual reporting limits may vary depending on matrix effects.

* As the reporting limits for these compounds are above the federal cleanup criteria, all wastes with detections of these compounds will be containerized.

Source: Cleanup Criteria for Groundwater, ASTM Data Series: DS 64, 1995.

site screening. If after five iterations, or the best judgment of the designated on-site waste coordinator, the decontamination water has not been rendered nonhazardous, it will be containerized appropriately for off-site transport and disposal.

3.1.5 Personal Protective Equipment

PPE (e.g., gloves and tyvek) will be decontaminated at each site. PPE will be characterized based on the decontamination water. If decontamination water is determined to be hazardous, PPE will be managed as hazardous waste and additional sampling will be conducted to properly characterize the PPE. If decontamination water is determined to be nonhazardous, PPE will be managed as nonhazardous waste. If respirator cartridges are used, they will be containerized as hazardous waste.

3.2 MANAGEMENT OF CONTAINERIZED INVESTIGATION-DERIVED WASTE

Containers will be segregated according to their content. The goal is to separate IDW as accurately as possible into categories that are intended to match IDW acceptance criteria of disposal sites or on-site disposal.

Applicable field segregation categories will be determined based on "Process Knowledge" such as site history, previous characterization data, field screening data, or coloration or odor. Although this information is both quantitative and qualitative, prudent applications can support strategies that minimize total handling, characterization, and disposal costs. Using applicable decision trees from the SI IDW guidance document (EPA 1991) and EPA's stated preference for on-site handling of most IDW, the following control measures are proposed.

3.2.1 Containerization

All waste will be stored in DOT-approved containers in order to eliminate the need for overpacking if the waste is determined to be regulated by DOT, and will be stored at a

designated storage area on site. An inventory of waste containers will be maintained by Foster Wheeler Environmental for later submission and inspection for the USFWS.

The soils and sediments that exceed ADEC matrix cleanup levels based on-site screening analyses from all investigations except background investigations will be containerized within DOT approved drums (1A2 steel drums). Soils and sediments that are determined to be hazardous or contain PCBs in excess of 1 ppm will also be containerized in DOT-approved drums. Upon classification of the waste, a proper shipping name will be determined. Each container will be properly marked and labeled if applicable as required by EPA and DOT. All DOT functions will be conducted by DOT trained personnel.

Excess water and decontamination water that are determined to be hazardous waste, contain PCBs greater than 1 ppm, or exceed ADEC most restrictive matrix criteria will be containerized within DOT-approved drums. Laboratory wastes will be similarly containerized. Upon classification of material a proper shipping name will be determined. Each container will be properly marked and labeled as required by EPA and DOT.

The IDW PPE will be washed, bagged, and containerized in DOT approved 55-gallon drums that have been properly labeled. The containers will be labeled as identified in Section 3.2.2.

3.2.2 Container Labeling

At the time of generation all waste containers will be labeled with the following information:

- Source and location
- Contents and quantity of material in the container
- Accumulation start date (the date the first drop of material was put in the container)
- Date container sampled

- Parameters analyzed for
- "ANALYSIS PENDING".

Containers determined to contain hazardous waste will immediately be labeled with a commercial EPA "HAZARDOUS WASTE" label, including the accumulation start date and other requested information. Containers determined to contain TSCA regulated waste will be labeled with a commercial TSCA PCB label. Containers determined to contain nonhazardous waste will be labeled nonhazardous waste.

3.2.3 Container Inspections

Containers will be inspected and logged by Foster Wheeler Environmental personnel weekly while the field work is in progress to ensure proper labeling, secure closure, condition of each container, number of containers and condition of the storage area. Any signs of deterioration, leaking or dents will be noted, and containers will be immediately overpacked, if necessary. Standing water will be removed from the containment area as necessary. Inspection results will be provided to the USFWS.

3.3 SAMPLING

Sampling will be conducted in accordance with the sampling and analysis procedures discussed in Section 4.0 of the Site Inspection Work Plan. Field screening analyses will be conducted for the following: volatile organic compounds, PCBs, polynuclear aromatic hydrocarbons, and DDT, using gas chromatography and enzyme-linked immunoassay techniques. While these analyses will not be complete RCRA tests, given the site histories and previous analytical data, on-site screening will allow characterization to be sufficient that appropriate management decisions can be made. PPE sampling and characterization will be proposed if analytical results indicate hazardous constituents.

3.4 STORAGE

The containers of solid IDW will be staged at the Base Camp on Amchitka Island until on-site screening test results have been received and managed in accordance with Section 3.2. The containers holding decontamination water will remain at each field site until on-site screening results are available. Following on-site screening, if containers of decontamination water or excess water samples are determined to be regulated under ADEC's petroleum cleanup requirements (since the soil samples in the area where excess water and decontamination water were generated exceeded ADEC's soils matrix criteria), they will be staged for treatment using a portable treatment unit.

3.5 DISPOSAL

All soils, sediments, excess water, and decontamination water that exceed ADEC matrix cleanup levels for TPH-contaminated soils, are hazardous waste, or contain greater than 1 ppm PCBs will be disposed of off site. All laboratory wastes and PPE will also be disposed off site.

At the present draft stage of this Work Plan, off-site waste disposal arrangements have not been finalized. Detailed shipment and disposal specifications will be included once waste classifications have been determined.

3.5.1 RCRA Hazardous Waste

If the test results indicate that the soils, sediments, decontamination water, or sample water are listed or characteristic hazardous waste, the waste must be disposed of at a fully permitted RCRA Subtitle C facility. The facility must meet the requirements of the LDRs, and must provide treatment of wastes prior to disposal as required under the LDR, as necessary to meet the LDR standards.

3.5.2 TSCA Wastes

If test results indicate that soils, sediments, or water contain greater than 50 ppm PCBs, the waste will be disposed of at a fully permitted TSCA treatment and disposal facility. The facility must meet the requirements specified in 40 CFR Part 761.

3.5.3 TPH-Contaminated Soils and Other Chemically Contaminated Wastes

Soils and sediments that exceed matrix cleanup levels or contain PCBs at concentrations greater than 1 ppm will be disposed of at an off-site disposal facility that accepts such wastes.

3.5.4 Nonhazardous Waste and Uncontaminated Trash

Nonhazardous waste will be disposed of at a facility permitted to accept such waste. Uncontaminated trash will be consolidated with trash from living quarters and disposed off site.

4.0 DOCUMENTATION AND NOTIFICATION

The information contained in this section applies to all IDW managed during these investigations. Field records will be kept of all disposal activities. The logs and records may include the following information:

- a) Description of generating activities
- b) Location of generation (including depth, if applicable)
- c) Type of waste
- d) Date and time of generation
- e) Date and time of disposal of each type
- f) Disposal location of each type
- g) Disposal method
- h) Description of any waste sampling, including:

- Type of test
- Laboratory where sample is to be sent
- Sampling method
- Name of sampler
- i) Name of person recording information
- j) Name of field manager at time of generation and at time of disposal
- k) Test results
- l) Inspection logs
- m) Waste documentation, including:
 - Waste profile sheets
 - LDR certification
 - Hazardous Waste Manifest (*2 copies* must be sent to ADEC)
 - Trip tickets or bills of lading
 - PCB Import/Export Confirmation Notice
 - Canadian Hazardous Waste Manifests
 - Canadian Transit Notice
- n) Copies of any state or local permits or approvals

4.1 TRANSPORTATION

All hazardous materials/hazardous waste transportation activities will be conducted in compliance with DOT regulations (49 CFR 100-177) and by personnel trained according to the requirements of HM-126F. Foster Wheeler Environmental will mark, label and placard drums, and retain the services of a transporter. Foster Wheeler Environmental will prepare the TSDF Waste profile

sheets, LDR notifications, waste manifests, and shipping documents. The USFWS will review and sign all documentation.

4.2 HAZARDOUS WASTE MANIFESTS AND LAND DISPOSAL RESTRICTION CERTIFICATION

All hazardous waste transported from the site must be accompanied by a Hazardous Waste Manifest. Alaska does not have a state manifest, so the receiving state manifest must be used, unless that state does not have a state manifest, and then a Uniform Hazardous Waste Manifest may be used. Waste manifest and LDR notifications will be completed by Foster Wheeler Environmental. The person preparing this documentation for the USFWS will be trained in both RCRA and DOT regulations and according the OSHA regulation 1910.120. USFWS personnel will be responsible for reviewing and signing all waste documentation. It is the option of the USFWS to decide whether their personnel will be similarly trained. Prior to signing the manifest, the designated USFWS official will ensure that pre-transport requirements of packaging, labeling, marking and placarding are met according to 40 CFR 262.30-262.33 and 49 CFR 100-177.

Foster Wheeler Environmental will complete the waste manifest. The USFWS official will sign the manifest certification by hand and obtain the handwritten signature of the initial transporter and date of acceptance on the manifest.

Foster Wheeler Environmental will give one copy of the manifest to the USFWS and give the remaining copies to the transporter. Copies of all manifests for waste generated at the site will also be kept at the site. In addition to the federal manifesting requirements, USFWS must submit two copies of each manifest for shipment to ADEC. The first copy must be signed by the USFWS, postmarked before shipment off-site, and mailed to ADEC central office. The second manifest copy must be signed by the transporter and by the owner/operator of the TSD facility that received the waste. The second copy must be received by ADEC central office within 45 days after the date the waste was accepted by the initial transporter.

A Land Disposal Certification form must accompany the shipment to the TSDF. The treatment, storage, and disposal facility must be notified prior to sending the IDW. The following items must accompany the notification, and are included in a facility specific form.

- a) EPA (provided by the USFWS)
- b) Manifest number
- c) Waste analysis data
- d) If the waste is also restricted, corresponding concentration-based or technology-based treatment standards or prohibition.

4.3 TRANSPORTATION OF HAZARDOUS WASTE THROUGH CANADA

If wastes are transported through Canadian waters, the Canadian Hazardous Waste Import/Export Regulations will need to be complied with. This includes the completion of a Canadian Transit Notice and Canadian Waste Manifests. In addition, if PCBs greater than 50 ppm will be transported, approval from EPA Region X is required. Foster Wheeler Environmental will prepare the Canadian Transit Notice for signature by the carrier. The carrier-approved notice will be faxed to Environment Canada as soon as possible and a hard copy will be mailed prior to transport of the waste. The completed transit notice and certificate of insurance as provided by the carrier will be faxed and submitted to:

Chief, Hazardous Waste Management Division
Office of Waste Management
Environment Canada
Place Vincent Massey, 12th floor
351 St. Joseph Blvd.
Hull, Quebec
K1A 0H3
Fax: (819) 953-0508
Telephone: (819) 997-3377

After review of this transit notice, Environment Canada will fax a formal written confirmation. This written confirmation will accompany the shipment.

Foster Wheeler Environmental will also prepare the Canadian Waste Manifests with Parts A (generator requirements) and B (carrier requirements) completed. Foster Wheeler Environmental will review, approve, and sign these manifests. After approval and prior to transportation off site, Foster Wheeler Environmental will fax copies of the Canadian waste manifests, Transit Notice, and Written Confirmation to the aforementioned address.

4.4 RCRA RECORDKEEPING AND REPORTING REQUIREMENTS

The designated USFWS manifest signatory official will be responsible for ensuring that all RCRA recordkeeping requirements are met according to 40 CFR § § 262.20 to 262.44, including retention of signed copies of manifests forms. A copy of the generator-signed manifest must be maintained until a copy of the disposal facility-signed manifest is received. The treatment, storage, and disposal facility-signed manifest must be maintained for a period of at least 3 years from the date that the waste was accepted by the initial transporter. Additionally, biennial and exception reporting must be submitted, as necessary, according to 40 CFR § 262.41 and 262.42, respectively. Additional reporting may be required under 40 CFR § 262.43.

5.0 REFERENCES

Alaska Department of Environmental Conservation

1991 Interim Guidance for Non-UST Contaminated Soil Cleanup Levels. Guidance Number 001-Revision Number 1.

Buonicore, Anthony J. (editor)

1995 Cleanup Criteria for Groundwater, ASTM Data Series: DS 64, Philadelphia, Pennsylvania.

U.S. Environmental Protection Agency

1991 Management of Investigation-Derived Wastes During Site Inspections. EPA/540/G-91/009.